

REMARKS/ARGUMENTS

This is a Response to the Office Action mailed October 18, 2006, in which a three (3) month Shortened Statutory Period for Response has been set, due to expire January 18, 2007. Twenty-five (25) claims, including four (4) independent claims, were paid for in the application. Claims 20 and 24 were canceled by the Applicants in their September 25, 2006, response to the Office Action of March 23, 2006. Claims 1-19 and 21-23 and 25-26 are currently amended and new claims 27-29 have been added. No new matter has been added to the application. No fee for additional claims is due by way of this Amendment. The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090. Upon entry of the amendments herewith, claims 1-19, 21-23, and 25-29 remain pending.

1. Request for Continued Examination

In accordance with 37 U.S.C. 1.114, a Request For Continued Examination is filed concurrently with this Amendment so that the Final Office Action mailed October 18, 2006, is effectively made non-final.

2. Response to Interview

Applicants thank the Examiner for the After-Final Interview conducted on November 15, 2006, wherein the order of activation of the recited power sources with respect to the cited art was discussed.

During the telephone interview, Applicant's attorney and Examiner agreed that the claims did not clearly distinguish between the first two steps of power generation (1-wind power and 2-battery power). The claims recite that the battery power (2) is engaged before the engine driven generator (3), but that this limitation does not establish that the wind power is the first energy produced. It was agreed upon that the claims would be amended to overcome the references by explicitly reciting the order of power sourcing (1-wind, 2-battery, 3-engine).

Further, the *Wichert* reference discloses a first distinct system at page 211 that is limited to providing intermittent power from an engine-driven generator and batteries (no wind power generation). Another distinct and separate system is disclosed in the *Wichert* reference at page 212 that is limited to providing power from a renewable resource, an engine-driven generator, and batteries.

3. Objections to the Claims

At paragraph 2 of the Office Action, claims 16 and 17 were objected to because “there is no basis for the term ‘island network.’” In response to the Objection, the claims 16 and 17 are amended herewith in order to amend the phrase “island network” to the phrase “isolated network” as suggested by the Examiner. Accordingly, Applicant respectfully requests withdrawal of the objection to the claims.

At paragraph 3 of the Office Action, claim 17 was objected to because “there is no basis for the term ‘generator.’” In response to the Objection, the claim is amended herewith. Accordingly, Applicant respectfully requests withdrawal of the objection to the claim.

4. Rejections Under 35 U.S.C. § 102(b)

In the Office Action, at paragraph 5, claims 1, 19, and 21-23 stand rejected under 35 U.S.C. §102(b) as allegedly anticipated by *Wichert* (“PV-Diesel Hybrid Energy Systems for Remote Area Power Generation – A Review of Current Practice and Future Developments”), hereinafter *Wichert*. For a proper rejection of a claim under 35 U.S.C. § 102, the cited reference must disclose all elements and/or features of the claim. See, e.g., *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 7 USPQ2d 1129 (Fed. Cir. 1988).

a. Independent Claim 1

Independent claim 1, as amended, is further allowable for at least the reason that *Wichert* does not disclose, teach, or suggest at least the emphasized features of claim 1 below:

An isolated electrical network, comprising:
 at least one first power generator coupled to a wind turbine to produce electrical power;
 a second generator coupled to an internal combustion engine;
 a bus bar for feeding the generated energy into the network;
 a device connected to the bus bar for detecting the power required in the network;
 at least one intermediate storage device for storing electrical energy coupled to the first power generator; and
 a controller operable to, in response to the required power in the network being less than power generated by the first power generator, *first control* power provided by the wind turbine that is delivered to the network; in response to the required power in the network being greater than power generated by the first power generator, *second control* power provided by the electrical intermediate storage device that is delivered to the network; and in response to the detected power required in the network being greater than the power generated by the first power generator and provided by the electrical intermediate storage device, *third control* power provided by the second generator coupled to the internal combustion engine that is delivered to the network.

That is, *Wichert* does not disclose the order in which energy demand in excess of the energy from the regenerative energy system is controlled to provide power to the network. Claim 1 recites the order of resource use since the power is first supplied by the first generator coupled to the renewable energy source (since the controller, in response to the required power in the network being less than power generated by the first power generator, *first controls* power provided by the wind turbine that is delivered to the network), second by the intermediate storage device (since the controller, in response to the required power in the network being greater than power generated by the first power generator, *second controls* power provided by the electrical intermediate storage device that is delivered to the network), and third by the second generator coupled to an internal combustion engine (since the controller, in response to the detected power required in the network being greater than the power generated by the first power generator and provided by the electrical intermediate storage device, *third controls* power provided by the second generator coupled to the internal combustion engine that is delivered to the network).

Since *Wichert* does not explicitly recite the order of power sourcing, *Wichert* does not anticipate claim 1. Thus, the rejection should be withdrawn.

b. Independent Claim 19

Independent claim 19, as amended, is separately allowable for at least the reason that *Wichert* does not disclose, teach, or suggest at least at least the emphasized features of claim 19 below:

A method for operation control of an isolated electrical network, comprising:
detecting electrical power required in the network;
generating electrical power with at least one first generator driven by at least one wind-power station;
first sourcing the network with the at least one first generator driven by the at least one wind-power station when consumption of the electrical power in the network is less than the electrical energy generation capacity of the wind-power station;
second sourcing the network with the at least one first generator driven by the at least one wind-power station and at least one electrical intermediate storage device when consumption of the electrical power in the network is less than the generated electrical power of the first generator and a stored energy capacity of the electrical intermediate storage device; and
third sourcing the network with the at least one first generator driven by the at least one wind-power station, the at least one electrical intermediate storage device, and at least one second generator driven by at least one internal combustion engine when consumption of the electrical power in the network is greater than the generated electrical power of the first generator and the provided power of the electrical intermediate storage device.

Claim 19 recites the order of resource use since the network is first sourced by the wind power station (first sourcing the network with the at least one first generator driven by the at least one wind-power station operating when consumption of the electrical power in the network is at least less than the electrical energy generation capacity of the wind-power station), second by the wind power station and the electrical intermediate storage device (second sourcing the network with the at least one first generator driven by the at least one wind-power station and at least one electrical intermediate storage device when consumption of the electrical power in the network is at least less than the generated electrical power of the first generator and a stored energy capacity of the electrical intermediate storage device), and third by the internal combustion engine (third sourcing the network with the at least one first generator driven by the at least one wind-power station, the at least one electrical intermediate storage device, and at

least one second generator driven by at least one internal combustion engine when consumption of the electrical power in the network is at least greater than the generated electrical power of the first generator and the stored energy capacity of the electrical intermediate storage device).

Since *Wichert* does not explicitly recite the order of power sourcing, *Wichert* does not anticipate claim 1. Thus, the rejection should be withdrawn.

c. Claims 21-23 and 26

Because independent claim 19 is allowable over the cited art of record, dependent claims 21-23 and 26 (which depend from independent claim 19) are allowable as a matter of law for at least the reason that the dependent claims 21-23 and 26 contain all features/elements of independent claim 19. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Accordingly, the rejection to these claims should be withdrawn.

Claim 22 is allowable for at least the reason that *Wichert* does not disclose, teach, or suggest “charging the electrical intermediate storage device from the at least one wind-power station when more energy is generated by the at least one wind-power station than is required for the load on the network” as recited in claim 22 (emphasis added). *Wichert*, at page 211, lines 28-29, only discloses that “excess energy is stored in the form of chemical storage.” However, at page 211, lines 11-32, *Wichert* is limited to disclosing a first system that provides “intermittent power” using an engine-driven generator, chemical storage of excess energy, and an optional dump load. Thus, this portion of *Wichert* disclosing a first system that provides “intermittent power” is only disclosing that the excess energy is supplied from the engine-driven generator. There is no regenerative energy source disclosed in this first *Wichert* system on page 211. (*Wichert* does disclose a second system, the hybrid energy system, having a renewable source at pages 212-214 and in Figure 1. However, this hybrid energy system is separate and distinct from the first system discussed on page 211. The two *Wichert* systems are separately treated, and accordingly, features of two *Wichert* systems cannot be properly combined in an anticipation rejection since they are so fundamentally different in structure and operation.) Therefore, *Wichert* fails to disclose “charging the electrical intermediate storage device from the at least one

wind-power station” because there is no wind power station disclosed in the first system. Accordingly, *Wichert* does not anticipate claim 22 and the rejection should be withdrawn.

Claim 23 is allowable for at least the reason that *Wichert* does not disclose, teach, or suggest “delivering energy from the electrical intermediate storage device to overcome frequency instabilities or deviations in the network power frequency from its desired value” as recited in claim 23. *Wichert* fails to disclose any aspect of overcoming frequency instabilities or deviations. Accordingly, *Wichert* does not anticipate claim 23 and the rejection should be withdrawn.

Claim 26 is allowable for at least the reason that *Wichert* does not disclose, teach, or suggest that “initially electrical energy of the *first generator* is supplied to the intermediate storage device if the intermediate storage device is not fully charged” as recited in claim 26 (emphasis added). The first generator, in accordance with claim 1, is coupled to a renewable energy source. *Wichert*, at page 211, lines 28-29, only discloses that “excess energy is stored in the form of chemical storage.” However, this portion of *Wichert* is limited to disclosing a first system that provides “intermittent power” using an engine-driven generator (which is not a renewable energy source), chemical storage of excess energy, and an optional dump load (page 211, lines 11-32). There is no regenerative energy source disclosed in this first *Wichert* system on page 211. Therefore, *Wichert* fails to disclose that “initially electrical energy of the *first generator* is supplied to the intermediate storage device if the intermediate storage device is not fully charged.” Accordingly, *Wichert* does not anticipate claim 26 and the rejection should be withdrawn.

d. Additional Argument for Allowability of Independent Claim 1

Additionally, independent claim 1 is allowable for at least the reason that *Wichert* does not expressly disclose “a bus bar for feeding the generated energy into the network” and “a device connected to the bus bar for detecting the power required in the network” as recited in claim 1. The Office Action, at page 6, admits that *Wichert* fails to expressly disclose the above-described features of claim 1 in its allegation that “it is *inherent* in the system disclosed in *Wichert* that it further comprises a device for detecting power required in the network because

the Wichert energy system must contain a device capable of determining when to charge or discharge the electrical intermediate storage device” (emphasis added). Applicant respectfully traverses the allegation above for at least the reasons below.

Alleging that it is *inherent* in the *Wichert* system to have a “device for detecting power required in the network” clearly shows *Wichert*’s failure to expressly disclose a device connected to the bus bar for detecting the power required in the network. MPEP §2136.02 clearly indicates that the “REFERENCE MUST ITSELF CONTAIN THE SUBJECT MATTER RELIED ON IN THE REJECTION” (printed in bold font in the MPEP). To infer such a teaching in *Wichert*, the Office Action must improperly assume or infer other facts not actually disclosed in *Wichert*.

Furthermore, the Office Action asserts that the allegedly inherent device is “capable of determining when to charge or discharge the electrical intermediate storage device.” However, claim 1 is not reciting a device that determines when to charge or discharge the electrical intermediate storage device. Rather, claim 1 recites a “device connected to the bus bar for *detecting the power required in the network*” (emphasis added). Detecting power required in the network is entirely different from determining when to charge or discharge the electrical intermediate storage device. Accordingly, the Office Action is basing the rejection, in part, by alleging disclosure of a device in *Wichert* that is not the device recited in claim 1.

Because the Office Action is inferring facts not actually disclosed in *Wichert*, and because what is alleged by the Office Action to be disclosed in *Wichert* is not what is recited in claim 1, rejection of claim 1 itself is not sufficient to establish a rejection under 35 U.S.C. §102(b). Accordingly, the rejection to claim 18 should be withdrawn for at least this reason alone.

In the event that the next Office Action maintains the rejection of claim 1 using inferred information that is not of record in *Wichert*, or asserts an obviousness rejection under 35 U.S.C. §103, Applicant respectfully requests a supporting citation disclosing “a device connected to the bus bar for detecting the power required in the network” as recited in claim 1. MPEP section 2144.03 indicates that “an obviousness rejection may be based upon common knowledge in the art.” However, MPEP section 2144.03 further requires that “if the applicant traverses such an assertion the examiner should cite a reference in support of his or her position.” Since the Applicant

has traversed the allegation used to reject claim 1, and has provided sound reasoning in support of the traverse, Applicant respectfully requests the Examiner to provide such a supporting citation as required by MPEP section 2144.03.

5. Rejections Under 35 U.S.C. § 103(a)

In the Office Action, at paragraph 7, claims 1-4, 7-8, 11-14, 16-18, and 25 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Wichert* in view of *De Zeeuw* ("On the Components of a Wind Turbine Autonomous Energy System"), hereinafter *De Zeeuw*. Additionally, at paragraph 8, claims 5 and 10 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Wichert* in view of *De Zeeuw* and in further view of *Da Ponte* (U.S. Patent 6,175,217); at paragraph 9, claim 6 stands rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Wichert* in view of *De Zeeuw* and in further view of *Jaunich* (U.S. Patent 6,605,880); at paragraph 10, claim 9 stands rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Wichert* in view of *De Zeeuw* and in further view of *Suzuki* (JP 2000-073931A); and at paragraph 11, claim 15 stands rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Wichert* in view of *De Zeeuw* and in further view of *Offringa* (EP 046,530 A1). It is well-established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements and/or features of the claim at issue. See, *e.g.*, *In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

a. Independent Claim 1

Claim 1 is rejected under 35 U.S.C. §103(a) as allegedly unpatentable over the proposed combination of *Wichert* in view of *De Zeeuw* because claim 1 recited the feature that the wind energy system can be controlled in terms of its rpm and blade position. *Wichert* does not disclose this feature. However, the Office Action alleges that *De Zeeuw* discloses the feature and that "it would have been obvious to combine the hybrid energy system in *Wichert* with the blade/angle speed control disclosed in *De Zeeuw*." However, the amendment to claim 1 removes

the above-recited feature, and accordingly, the rejection to claim 1 as allegedly being unpatentable over the proposed combination of *Wichert* in view of *De Zeeuw* is moot. Accordingly, the rejection of claim 1 under 35 U.S.C. §103(a) should be withdrawn.

Furthermore, *Wichert* fails to disclose the recited features of amended claim 1, as noted above (the order of resource use). *De Zeeuw* also fails to disclose, teach, or suggest the above-described features of amended claim 1. Accordingly, the proposed combination of *Wichert* in view of *De Zeeuw* does not teach at least the above-described features of amended claim 1. Therefore, a *prima facie* case establishing an obviousness rejection by *Wichert* in view of *De Zeeuw* has not been made. Thus, claim 1 is not obvious under proposed combination of *Wichert* in view of *De Zeeuw*, and the rejection should be withdrawn

b. Dependent Claims 2-4, 7-8, 11-14, 16-18, and 25

Because independent claim 1 is allowable over the cited art of record, dependent claims 2-4, 7-8, 11-14, 16-18, and 25 (which depend from independent claim 1) are allowable as a matter of law for at least the reason that the dependent claims 2-4, 7-8, 11-14, 16-18, and 25 contain all features/elements of independent claim 1. That is, since both *Wichert* and *De Zeeuw* fail to disclose, teach, or suggest the recited features of claim 1 which are inherently incorporated into claims 2-4, 7-8, 11-14, 16-18, and 25, the proposed combination of *Wichert* in view of *De Zeeuw* fails to establish a *prima facie* case of an obviousness rejection. Accordingly, the rejection to these claims should be withdrawn.

6. Conclusion

In light of the above amendments and remarks, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that all pending claims 1-19, 21-23, and 25-29 are allowable. Applicant, therefore, respectfully requests that the Examiner reconsider this application and timely allow all pending claims. The Examiner is encouraged to contact Mr. Armentrout by telephone to discuss the above and any other distinctions between the claims and the applied references, if desired. If the

Application No. 10/506,944
Reply to Office Action dated October 18, 2006

Examiner notes any informalities in the claims, he is further encouraged to contact Mr. Armentrout by telephone to expediently correct such informalities.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC



Raymond W. Armentrout
Registration No. 45,866

RWA:jr

701 Fifth Avenue, Suite 5400
Seattle, Washington 98104
Phone: (206) 622-4900
Fax: (206) 682-6031

970054.471USPC / 856084_I.DOC